



Committed to the future of rural communities.

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Development
Temple, Texas

ISSUE NO. 40
DATE February 17, 2005
Distribution SLO

STATE PROCEDURE NOTICE

TEXAS RD MANUAL CHANGES

INSERT Texas RUS Instruction 1780 Subpart C, Appendixes A, B & C

Subpart C – PLANNING, DESIGNING, BIDDING, CONTRACTING, CONSTRUCTION AND INSPECTIONS. Revised to correct references to State agencies and other minor consolidations and corrections.

REMOVE

Texas RUS Instruction 1780, Subpart C (rev. 1/2004),
Appendixes A (rev. 11/2003) & B (rev. 1/29/02)

INSERT

Texas RUS Instruction 1780, Subpart C rev. 02/2005
Appendixes A, B & C (rev. 02/2005)

NOTICE (SLO)

TEXAS USDA RURAL DEVELOPMENT FORMS & BULLETINS REFERENCE LIST. The attached Texas USDA Rural Development Forms & Bulletins Reference List is revised and updated through this Procedure Notice. It contains RD TX Forms, RUS TX Bulletins, and Guide Letter.

REMOVE

State Forms Reference List dated 01/2004

INSERT

Texas Forms & Bulletins Reference List dated 02/2005

TEXAS FORM REPLACEMENT

RD TX 1924-8

AGREEMENT FOR ARCHITECTURAL AND ENGINEERING SERVICES revised 05/03. The form is revised to correct typographical error. This form is available on the Texas USDA Rural Development web page <http://www.txtemple.fsc.usda.gov/cgi-bin/forms/home.pl>. No paper copy distribution of this form will be made.

REMOVE

RD TX 1924-8 (rev.05/03)

INSERT

RD TX 1924-8 (rev. 02/05)

RD TX 1942-19

MEDIAN FEES FOR PROFESSIONAL ENGINEERING SERVICES AS A PERCENTAGE OF NET CONSTRUCTION COST revised 01/04. The form is revised to correct reimbursable mileage amount and consolidate the previous version. This form is available on the Texas USDA Rural Development web page <http://www.txtemple.fsc.usda.gov/cgi-bin/forms/home.pl>. No paper copy distribution of this form will be made.

REMOVE

RD TX 1942-19 (rev.01/04)

INSERT

RD TX 1942-19 (rev. 2/2005)

Form RD TX 2006-46

STATE PROCEDURE NOTICE revised 3-03. The form is revised to include the new logo. This form is available on the Texas USDA Rural Development web page <http://www.txtemple.fsc.usda.gov/cgi-bin/forms/home.pl>. No paper copy distribution of this form will be made.

REMOVE

RD TX 2006-46 (rev. 3/2003)

INSERT

Form RD TX 2006-46 (rev 2/2005)

OBSOLETE

Form RD TX 2036-1

TRAVEL REQUEST FORM revised 5-03. This Form is no longer required. Supplies will be disposed of or recycled.

REMOVE

RD TX 2036-1 (rev. 5/2003)

READ PROCEDURE – DISCUSS IN STAFF CONFERENCE

Subpart C - PLANNING, DESIGNING, BIDDING, CONTRACTING, CONSTRUCTING AND INSPECTIONS

This instruction can be found at the following web site address:
<http://www.rurdev.usda.gov/tx/rusdocs.htm>

1780.53 GENERAL.

This State Instruction supplements RUS Instruction 1780, Subpart C – Planning, Designing, Bidding, Contracting, Constructing and Inspections. This Instruction should be reviewed along with RUS Instruction 1780 and RUS Bulletin 1794A-602 prior to developing a project.

1780.54 TECHNICAL SERVICES.

Each applicant is responsible for selecting its engineer. Any engineer registered in Texas with sufficient experience, capital, equipment and staff to design the project may contract with the applicant. Compensation for engineering design and contract administration services should be based on percentage of net construction costs. The following forms can be used when contracting for engineering services:

- Form RD 1942-19 (Rev. 10/96), Agreement for Engineering Services, with Form RD-TX 1942-19, Attachment I (Texas), 5 pages, “Median Fees for Professional Engineering Services as a Percentage of Net Construction Cost” or
- EJCDC* No. E - 510 (2002 Edition), Standard Form of Agreement Between Owner and Engineer for Professional Services, Funding Agency Edition, and Exhibits A through J, including Attachment I (Texas), 5 pages.

* (EJCDC = Engineers Joint Contract Documents Committee)

1780.55 PRELIMINARY ENGINEERING REPORTS AND ENVIRONMENTAL REPORTS.

Preliminary Engineering Reports will be prepared by the applicant’s engineer. It shall be bound, dated, signed and sealed by the design engineer registered in the State of Texas. It will be prepared in accordance with the following applicable bulletins:

- ◆ RUS Bulletin 1780-2, Preliminary Engineering Report - Water Facilities
- ◆ RUS Bulletin 1780-3, Preliminary Engineering Report - Wastewater Facilities

- ◆ RUS Bulletin 1780-4, Preliminary Engineering Report - Solid Waste Management Facilities
- ◆ RUS Bulletin 1780-5, Preliminary Engineering Report – Storm Water Facilities
- ◆ RUS Bulletin 1794A-602 Guide for Preparing the Environmental Report for Water and Waste Projects

The bulletins can be found at <http://www.usda.gov/rus/water/regs-bulletins.htm>

The preliminary engineering report is normally the only engineering report required by USDA Rural Utilities Service (RUS). It establishes the PROJECT SCOPE, FUNDING REQUIREMENTS, and outlines the BASIC PROJECT DESIGN. It should be submitted together with the environmental report. Any changes in the proposed project after approval of the preliminary engineering report will require an amendment be provided by the applicant's engineer for USDA Rural Development review and approval.

A Guide for preparation of the Preliminary Engineering Report is also available.

Detailed cost estimate to include unit cost of all pipe, valves, road crossings, stream crossings and all distribution system appurtenance as it will appear in the bid schedule. Detailed cost estimate to include unit cost of collection system pipe by diameter and depth. Depth increments should be 0 – 5', 5' – 7', 7' – 9', etc. Estimated cost of wells and plant work should also be broken into components. A contingency not to exceed 10% of construction cost should be included. Engineering costs should be separated as it is in the Agreement for Engineering Services. Other costs should be included, such as: interest during construction, land, legal, water rights, etc. Administrative cost should not be included in the proposed USDA Rural Utilities Service funding requirements.

NOTE: If the proposed project includes water and wastewater, two separate complete cost estimates are required.

Funding from USDA Rural Utilities Service, State, and other funding sources **MUST** be clearly distinguished in the detailed cost estimate.

Annual Operating Budget. The report should contain the annual operating cost, as well as a typical operating budget. The budget should include principal and interest on loan, power cost, water cost if purchased, maintenance, labor, taxes, insurance, audits, equipment leased, reserves, and other costs. The minimum annual reserve payment must be equal to 1/10 of the annual payment. Short lived assets must also be addressed to include items typically not found in O & M expenses that need to be replaced over 1 to 15 years. Avoid including dry taps in

calculating income from water sales and livestock water meters, unless no other livestock water supply will be available. The budget should be prepared on Form RD 442-7, "Operating Budget," in consultation with the applicant and USDA Rural Development local office personnel. The income from dry taps should be shown on a separate line and not be included in the feasibility of the project. Include all taxes for State, County, schools, etc.

1780.57 DESIGN POLICIES.

(a) Compliance with the State Regulatory Authority Standards. Each USDA Rural Utilities Service financed facility will comply with the requirements of the TCEQ (Texas Commission on Environmental Quality), or other appropriate regulatory agency. The applicant is responsible for obtaining and presenting to USDA Rural Utilities Service evidence of such compliance, including approval of construction plans and specifications.

(b) Consistency with Area Plans for Development. Projects for which USDA Rural Utilities Service funds are to be used must be consistent with development plans for the area in which the project is located. Applicants will provide USDA Rural Utilities Service with evidence of consistency with such plans. Planning should not be done within the extraterritorial jurisdiction of any city unless an understanding has been reached with the appropriate city officials. The extraterritorial jurisdiction of towns and cities in Texas is as follows:

Less than 5,000 population	½ mile radius
5,000 – 25,000 population	1 mile radius
25,000 – 50,000 population	2 mile radius
50,000 – 100,000 population	3 ½ mile radius
Over 100,000 population	5 mile radius

(c) Fire Protection. Fire protection will be considered for each water system. Due to the entity's income, it may not be possible to install a "key rate" system; however, the size and location of facilities should be consistent with a fire protection plan.

Where it is impractical to install fire hydrants in low density areas, fire tank filling valves should be located at the source of supply, the storage area, and at other strategic locations. The applicant and its consulting engineer should give the local fire department authorities an opportunity to assist in the selection of sites for such valves.

(d) Water System Designs. The following are guides for use by engineers in preparation of preliminary designs and estimates for rural water systems:

1. General. All water systems shall be designed and constructed so as to

conform to all applicable State, Federal, and local laws, ordinances, and regulations.

2. Water Quality. The quality of water to be supplied must meet the approval of the TCEQ.
3. Raw Water.
 - a. SUPPLY. The proposed source should be adequate to supply water for immediate needs with reasonable reserve for expansion. A minimum quantity of 0.6 gpm per meter will be acceptable. Supply flow to distant storage tanks should not be less than 0.6 gpm per meter served and existing potential user. If there are large users on the system, or expected growth, the supply flow will be increased accordingly.
 - b. TREATMENT. Treatment methods and facility design must be acceptable to the TCEQ and in accordance with acceptable design criteria. The proposed treatment method and facility must be guaranteed to produce potable water from the supply for a minimum period of one year. Adequate chlorination facilities will be required at each booster station. Where treatment of water is involved, gas chlorination should be used.
4. Pumps and Motors. Pump selection shall be based on predetermined conditions and demand. Pump evaluation shall consider pumping rate, number of pumps, peak demands, elevated storage, demand horsepower, total power cost and individual pump efficiency curves. All installations shall utilize the highest efficiency pump practical. Pumps should be protected from operating under no-flow conditions and from over pumping and overloading by means of appropriate automatic controls. Transfer pumps must be provided in duplicate with each having a rated capacity of 0.6 gpm per connection. Two or more service pumps should be provided with a total rated capacity at 2.0 gpm per connection.
 - a. SIZE. The size of pumps and motors should normally be based on the existing flow conditions plus allowance for growth that is reasonably expected to occur within the life of the pump or motor. Plant or well piping should be sized for growth allowance on a longer period of time.
 - b. MOTOR PROTECTION. Adequate safety devices must be provided to protect electric motors from damage caused by “single phasing,” overheating, lightning, etc.

(1) Power Supply. Prior to preparation of the engineering report and

selection of pumping sites, the engineer should contact the local power company to determine the power supply available. Many power companies can only supply open Delta power three-phase.

If the power company cannot guarantee a balanced current, the use of the next larger size motor is recommended. The engineer should include in the engineering report the type of power that will be available. The power company may require contributions in aid of construction – such cost must be included in the project cost.

- (2) **Three-Phase Monitor.** Power monitors must be installed to protect electric motors from high voltage, low voltage, phase failure and phase reversal. Line shaft turbine pumps with use of the next larger size motor is recommended for water wells where there is a phase balance problem.
- (3) **Thermal Overloads.** Normal thermal over-loads used for standard motors will not trip fast enough to protect submersible pump motors and extra quick trip type heaters must be specified.
5. **Storage.** Minimum total storage volume shall not be less than 200 gallons per meter served. It may be desirable to provide additional storage when the source of water is limited and/or supply is from a single well. Additional storage may also be required for fire protection, growth, large users, etc., based on a study of the specific project. Storage facilities will be designed to meet current American Water Works Association (AWWA) specifications. Foundation design for standpipes and elevated storage tanks will be based on soil investigation by a reputable consultant.
6. **Distribution System.**
 - a. **PRESSURES.** The maximum pressure on any service should not exceed 80 psi. Normal pressures should not be less than 35 psi at the curb stop, calculated with the design flow rate of 1.5 gpm to each meter in the system. Individual and/or in-line pressure reducing valves should be used to reduce high pressures on the line to service connections.
 - b. **FLOW RATES.** Flow rates shall be computed for the analysis of the specific project. Minimum acceptable flow rates are:

$Q = 1.5C$ with a minimum pressure of 35 psi

When Q = flow in gpm
 C = customers

Pipe sizes shall be computed based on the flow rate required to serve all existing houses or potential users in the service area. Engineers must also consider sizing pipe for fire flow, potential extensions, loop completion, etc.

- c. **PLANT SITE.** The plant sites are to be fenced with a non-climbable fence. The pump house should have adequate cross ventilation and insulation. A thermostatic controlled heater should be provided in the pump house to prevent freezing. All exposed outside piping must be insulated. The plant site shall be readily accessible with entry drive and culvert and rock rip-rap to prevent erosion, with well drained asphalted or coarse stone surfacing preventing soil tracking onto adjacent highway.
 - d. **GRAVITY FLOW.** Gravity flow systems shall be used to the fullest extent possible by utilizing ground storage tanks, standpipes, elevated tanks, etc., for all or portions of the distribution flow. Elevated storage in the amount of 100 gallons per connection should be provided above the elevation required to produce the minimum design pressure.
7. **Hydropneumatic Pumping.** Pumps supplying the pressure tank shall be sized to avoid short cycling of the pump. The following should be included in plant design:
- a. Provide two or more booster pumps with a total capacity of 2.0 gpm per connection. Provide two transfer pumps with a minimum capacity of 0.6 gpm per connection.
 - b. Provide pressure tank capacity in the amount of 20 gallons for each meter served.
 - c. Flow to distribution system should not pass through the pressure tank.
 - d. Pump selection and plant design shall provide for an efficient and economical operation.
8. **Pipeline Installation.** Installation shall be in strict accordance with the manufacturer's recommendations and the written specifications. In areas where rock excavation is necessary, the design shall provide for over excavation and refill to grade with acceptable material.
- a. **DEPTH.** The depth of cover shall be 30 inches except in County, State Highway and railroad crossings, where the depth shall be 36 inches in the barrow ditches. Gully and stream crossings shall also be

a minimum of 36 inches deep to the top of the pipe. Bedding and cover materials shall be as approved by owner's consulting engineer.

- b. **SANITATION.** The pipe shall be kept clean of all foreign matter. At the termination of pipe laying, the open end of the pipeline shall be closed by a suitable cover until laying operations are resumed.
 - c. **JOINING.** Only trained and certified employees will be permitted to join the pipe.
 - d. **LAYING.** Pipe shall be laid on a level trench bottom. An irregular trench bottom will require additional bedding.
9. **Plastic Pipe Specifications.** It is the responsibility of the consulting engineer to see that materials meet specifications. In addition to making routine checks of dimensions on plastic pipe provided for each project, each contract should have a paragraph similar to the following:

“Each load of pipe delivered to the job site will be checked by the engineer to assure that it meets specifications. When a load of pipe is found to have inadequate wall thickness or tolerances greater than specified, randomly selected samples of the pipe shall be immediately forwarded to an approved testing laboratory with instructions to check the pipe for compliance with applicable product standards, American Society for Testing Materials (ASTM) specifications and other specifications for the specific contract. When the testing laboratory reports concur that the pipe does not meet specifications, it is to be understood that all of the defective pipe delivered to the site will be immediately removed and replaced by the contractor at no additional cost to the owner.”

a. **LINE PRESSURE.**

- (1) For Pressure Class – DR-AWWA C900 PVC pipe, maximum working pressure should not exceed the pressure class of the pipe.

<u>DR</u>	<u>PRESSURE CLASS</u>	<u>MAXIMUM WORKING PRESSURE (PSI)</u>
14	200	200
18	150	150
25	100	100

- (2) For Pressure Rated – SDR-ASTM D2241 PVC pipe, maximum line pressure must not exceed 65% of the pressure rating printed on the pipe, to provide a surge allowance.

<u>SDR</u>	<u>PRESSURE RATING</u>	<u>MAXIMUM WORKING PRESSURE (PSI)</u>
21	200	130
26	160	104

Exceptions to the 65% requirement may be allowed on distribution lines served from standpipe or elevated storage where no control valves, pressure-reducing valves, or booster pumps are in line.

10. Valves. Sufficient valves should be provided to permit isolation and repair of lines and appurtenances.
 - a. **GATE VALVES**. Gate valves larger than 2 inches should be brass-fitted cast iron. Smaller than 2 inches may be bronze. All valves shall conform to current AWWA standards and have a minimum pressure rating of 150 psi.
 - b. **CURB STOPS**. Curb stops shall be bronze and conform to current AWWA standards.
 - c. **AIR RELIEF**. Adequate air relief and flushing valves must be provided in accordance with good engineering design and industry standards. Air relief valves shall be connected to pipelines with flexible designed connections and set for protection from equipment and livestock.
 - d. **CHECK VALVES**. Non-slam check valves should be used on discharge line of booster pumps and other critical areas where surges are expected and check valves are needed.
 - e. **CORPORATION STOPS**. Corporation stops shall be provided at all services.
 - f. **VALVE MARKERS**. Valve markers shall be provided in rural areas.
 - g. **PIPELINE MARKERS**. Pipeline markers are recommended at all road bores.
11. Controls. Controls should be sturdy and simple, automatic in all cases, and adequate to protect equipment and maintain proper flow. Backup all automatic controls with manual controls. A schematic diagram of the electrical controls and wiring must be made a part of the plans.

When controls are required to operate valves and pumps to fill distant tanks, the engineer will include a narrative detailing the sequence of operation.

12. System Testing and Disinfecting.

- a. Before being placed into service, the entire system shall be disinfected in accordance with the requirements of the TCEQ.
- b. When pressure testing new lines, leakage shall not exceed 10 gallons per inch of pipe diameter per mile of pipe per 24 hours, when tested at 1 ½ times the working pressure or rated pressure of the pipe, whichever is greater. A minimum 4-hour test shall be performed successfully prior to approval by the engineer.
- c. The consulting engineers will furnish the owner and USDA Rural Development local office personnel a signed certification stating the pressure test(s) has been performed in accordance with the specifications. The certificate should contain, but not be limited to, the following:
 - (1) Date tests were performed.
 - (2) Name of people in attendance.
 - (3) Brand name of pipe and pressure rating.
 - (4) Test pressure and length of time applied.
 - (5) Number of leaks found during testing.
 - (6) Comments.

(e) Sewer System Design. The following are guidelines for use by engineers in preparation of preliminary design and estimates for sewer systems.

1. General. All sewer systems shall be designed and constructed so as to conform to all applicable Federal, State, and local laws, ordinances, and regulations.
2. Effluent Quality. A discharge permit must be applied for and obtained from the TCEQ. This permit should be acquired as early as practicable.
3. Treatment. Treatment methods and facilities must be acceptable to the TCEQ and in accordance with acceptable design criteria. BOD loading for design considerations should not be less than 200 mg/l BOD 5 (BOD 5 = biochemical oxygen demand for 5 days at 20°C) with hydraulic loading of 100 gpd/capita. For new collection systems, loadings from infiltration should be minimum. Calculated detention times for treatment plants should be presented for each cell or unit. All designs will consider expected reasonable growth.

4. Lift Stations. Where two or more pumps are utilized, their operation sequence and control system should be described. Normally on duplex installations the second pump is designed to operate in a back-up type operation. Controls requiring both pumps to be called on line simultaneously when lift stations overload may not be in the best interest of system operation. Lift station design should not transfer a problem to downstream lines and the treatment facility in lieu of correcting the problem upstream of the lift station. An audio/visual alarm system (red flashing light and horn) shall be provided for all lift stations. These alarm systems should be telemetered to a facility where 24-hour attendance is available. The alarm system shall be activated in case of power outage, pump failure or a specified high water level.
5. Collection System. Line sizes shall be computed based on expected flow rates to serve all existing houses or potential users in the service area plus reasonable growth. Pipe selection must consider soils characteristics, slope, depth of cover and/or exposure. The design and selection of materials shall insure a watertight system and confirmation of appropriate tie-in elevations. For new systems, infiltration and non-sewerage inflows should be considered as minimal. Manholes should be designed and specified as watertight construction. Precast manholes with O-ring joints, gasket line installation, and water tight manhole cover should be utilized. Wherever practicable, manholes should be eliminated with the concurrence of the regulatory authority. On PVC pipe collection systems, cleanouts should be utilized on the end of gravity lines and wherever practical to reduce construction costs and the infiltration associated with manholes. The pipe shall be identified in the plans and technical specifications with its appropriate ASTM, American National Standards Institute (ANSI) or AWWA standard numbers for both quality controls (dimension, tolerance, etc.) and installation (bedding, backfill, etc.).
6. Installation of Collection System. Installation shall be in accordance with the manufacturer's recommendation and the written specifications.
 - a. Trench Safety. Trench safety provisions shall be in accordance with applicable state laws. An item for trench safety construction will be included in the bid schedule for construction.
 - b. Testing. Sufficient testing of collection system installation for insuring watertight construction shall be included in the specifications and performed prior to prefinal inspections. The project engineer shall observe the final testing of collection lines.

- (1) Manholes shall be tested for leakage separately and independently of the wastewater lines. An infiltration, refiltration or low pressure air test shall be specified. Deflection tests shall be performed on all flexible pipes.
 - (2) If manholes are located within the 100-year flood plain, the manhole covers shall have gaskets and be bolted or have another means of preventing inflow.
- c. Sewer Taps. Sewer taps should be installed during the construction of collection lines with TEE and Wye fittings. Taps shall be a minimum of 4 inches and extend to the finished ground surface of property to be served. All service taps shall be capped until house services are installed. House service shall extend from the property line to the connection of the house sewer.

1780.61 CONSTRUCTION CONTRACTS.

When the project includes both water wells and distribution system construction, the owner's engineer will not issue Notice to Proceed for distribution contracts or treatment plant until a water source has been approved by the TCEQ. To avoid delays in awarding distribution contracts, a well test hole should be drilled or a well completed prior to bidding the distribution system.

All contract documents shall be provided with an index to the technical specifications. The engineer shall prepare separate contract documents, plans, and specifications for; water storage facilities, elevated storage tanks, water distribution systems, water treatment plant, water well collection system, wastewater treatment plant.

(a) Contract Documents. For review purposes, contract documents should be presented in the order as shown in Appendix A to this Instruction, "Rural Utilities Service Water and/or Waste Assembly of Contract Documents," or "Assembly of Contract Documents for Short Form Construction Contract." Use Appendix B for Assembly of EJCDC Contract Documents.

(b) Contract Specifications. When a specific manufacturer or supplier is named in the contract specifications, **at least two competitive manufacturers or suppliers** of the equipment or product must be specified along with "or equal" or "or approved equal" clause. No brand names shall be shown in the contract bid schedule. See §1780.70 Owner's Procurement Regulations for more specific instructions.

(c) Construction Plans. All plan sheets shall bear the seal and signature of the designing engineer and date of execution.

Environmental Mitigation. Mitigation requirements as stated in the approved environmental report and the Letter of Conditions shall be incorporated by the engineer in the contract documents, plans and specifications.

1780.67 PERFORMING CONSTRUCTION.

All projects financed by USDA Rural Utilities Service shall have construction signs posted at the construction site at the beginning of construction. Sign shall remain throughout the construction period. A sketch and specifications are provided in Appendix B to this Instruction. These specifications can also be found at the following web site:

www.usda.gov/rus/water/ees/englib/doc/RDTempConstructionSign.ppt

The same specifications may also be used for the permanent sign.

1780.70 OWNER'S PROCUREMENT REGULATIONS.

All procurement transactions, regardless of whether by sealed bids or negotiation and without regard to dollar value, shall be conducted in a manner that provides maximum open and free competition. The procurement also must comply with the Texas State law (Texas Water Code).

The contract specifications should provide a clear description of the technical requirements for the equipment, product, or service to be provided. These technical requirements should be stated in terms of functions to be performed or performance required, including the range of acceptable characteristics or minimum acceptable standards.

Use of Brand Names: When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, the design engineer may use a "brand name or equal" description. The "brand name or equal" approach should be used to supplement the description of technical requirements. The design engineer shall name **at least two competitive manufacturers or suppliers of the equipment or product being specified along with an "or equal" or "or approved equal" clause.**

A proprietary specification is not consistent with open and free competition and should be used only when project requirements are unique, as documented by the design engineer in writing and concurred by the USDA Rural Development engineer, or needed for interchangeability of part or equipment.

Bid Schedule Format: A base bid with substitutes is not allowed. No name of any specific manufacturer or supplier is allowed.

If the selection of a major equipment could significantly impact the remainder of the project, a “**pre-selection**” process should be conducted. Two methods may be used:

1. A pre-bid type of competitive negotiation in which manufacturers are requested to submit proposals to the owner on technical merit and prices. (Request for proposal is publicized). The owner and engineer analyze the pre-bids and select the equipment based on price and other factors. The name and price of the major equipment is then included in the general contract bid documents to prevent this “pre-selection” process from turning into a sole-source specification.
2. A phased bid is another pre-selection method. The first phase would be a competitive bid for the major equipment item based on technical requirements (this may include a pilot test). After the major equipment manufacturer is selected the project design can be finalized, and the remaining contracts bid competitively. Any first-phase contracts are bid with a hold period sufficient to allow for completing design of the remainder of the project and bidding the remaining contracts with the understanding that the first-phase contract(s) will be assigned to a general contractor when the second-phase contract is awarded. The owner discloses the name and price of the first-phase pre-selected contractor in the second-phase contract bidding documents.

1780.72 PROCUREMENT METHODS.

Invitations to bid will be sent to local and regional contractors who might be interested in bidding on projects of the size and scope concerned. In order to assure good coverage for inviting bids, advertisements for bids will be published in a newspaper having at least region-wide circulation and one or more of the following trade journals:

The Builders Exchange of Texas, Inc.
4047 Naco Perrin Drive
San Antonio, TX 78217
(210) 564-6900

The Associated General Contractors of America (various chapters) and

Dodge Reports

For non-profit organizations, advertisements will be published at least two weeks prior to the bid opening date. Advertisement for public bodies will be published in accordance with State statutory requirements for the particular body and in the above referenced trade journals. The bid date will be set with concurrence of the USDA Rural Development local office personnel and borrower for an opening date far enough in advance to make plans to attend.

1. Bid Delivery. Bids should be delivered at a designated place and not later than a designated date and time, but not on a legal holiday or the day following. Bids should be opened and read in the presence of bidders and a tabulation of all bids received should be furnished to each bidder. An itemized reading of the apparent low bid or bids will be made at the request of any bidder. Under no circumstances should a bidder be permitted to alter his bid after the time designated for receipt of bids.
2. Bid Openings. Bid openings will be attended by a USDA Rural Development representative. The engineer shall provide a copy of the itemized bid tabulation to the USDA Rural Development local office. The local office should forward a copy of the bid tabulation to the State Office Community Programs Section.

1780.75 CONTRACT PROVISIONS.

- (a) Contract Approval. The applicant's attorney will review the executed contract documents, including performance and payment bonds, and provide USDA Rural Utilities Service with Certificate of Owner's Attorney (RUS Bulletin 1780-4, page 7) stating that the documents have been properly executed and that the persons executing these documents have been properly authorized to do so. The contract documents, including bid tabulation sheets and specifications, will be forwarded to USDA Community Programs Section for approval. Form AD 1048 (1/92), 2 pages, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions," should also be included as part of the contract documents. All contracts will contain a provision that they are not in full force and effect until they have been approved by USDA Community Programs in writing. USDA Rural Development local office personnel will review the contract in accordance with the executed contract checklist provided in the RUS Training Guide and send one copy of each executed contract with recommendations to the State Office Community Programs Section for approval.
- (b) Filing Executed Instruments. After the contract and bond(s) have been properly executed, dated and approved by the USDA Rural Development State Office, Rural Utilities Service, Community Programs Section, the following instruments should be filed for record:
 1. PUBLIC BODIES. With contracts and bonds furnished in connection with public works, the contract need not be filed for record since Chapter 2253 of the Government Code does not require the filing of these instruments.

2. NON-PROFIT CORPORATIONS.

- a. Contract Agreement. The original Agreement (RUS Bulletin 1780-13, or Agreement between Owner and Contractor, EJCDC No. C-521) between the owner (Corporation) and the contractor, or a true copy thereof, must be placed on file in the county clerk's office.
- b. The Payment Bond must be filed for record in accordance with Section 53.203, Texas Property Code.
- c. The county clerk shall index and cross index the Agreement and Payment Bond in the name of the original contractor and Corporation in the records kept for that purpose.
- d. The instruments must be placed on file and recorded in all counties where the facilities are located. The purpose of this requirement is to prevent any claimant from filing suit against the Corporation or against the property of the Corporation to obtain payment for labor or materials furnished by contractor and to relieve the Corporation of certain statutory duties.

1780.76 CONTRACT ADMINISTRATION.

Owners shall be responsible for maintaining a contract administration system to monitor the contractors' performance and compliance with the terms, conditions, and specifications of the contracts.

USDA Rural Development local office personnel will monitor the construction of all projects financed wholly or in part with USDA Rural Utilities Service funds. Prior to beginning construction, a pre-construction conference shall be held with USDA Rural Utilities Service/Community Programs reviewing its requirements. USDA Rural Development local office personnel shall make construction inspections on a monthly basis during construction and more frequently where necessary to adequately monitor the acceptability of material inventories and development. Inspection by USDA Rural Development does not relieve the project engineer, project inspector or owner of their responsibility to insure the contractor is performing the work according to the contract documents.

Inspections. The resident inspector will work under the technical supervision of the applicant's project engineer and the role and responsibilities will be defined in writing and provided to USDA Rural Development for review.

1. Copies of all inspection reports by the project engineer and USDA Rural Development local office personnel should be submitted to the State Office, Community Programs Section. The local office personnel should

receive copies of daily inspection reports on all projects. USDA Rural Development local office personnel will utilize these reports in making their inspections and certifying partial payments.

2. When there is an indication that approved plans and specifications are not being complied with, USDA Rural Development local office personnel should notify the State Office Community Programs Section (the State Office Engineer), and the borrower that project development is not acceptable, in addition to withholding future payments (advances). The owner's engineer will present a written recommendation for resolution of the problem to the owner, contractor and USDA Rural Development. The final action should be taken after consultation with the State Office engineer.
3. Payments. Payments for construction will be made using Form RD 1924-18 (Rev. 6-97), "Partial Payment Estimate." (or Application for Payment EJCDC No. C-620). They will be prepared by the contractor, and revised and approved by the owner's engineer. They will also be approved by the owner prior to submitting to the USDA Rural Development office. Each payment estimate will contain a certification by the engineer that all material purchased and all work performed is in accordance with the plans and specifications. The engineer will additionally certify that each load of PVC plastic pipe (or other) delivered and incorporated into the work has been inspected by the engineer and found to meet specifications.

The governing body must also approve each payment estimate. If there is indication that construction is not being completed in accordance with the plans and specifications, or that any problems exist, the engineer should notify the USDA Rural Development local office responsible for project monitoring. The engineer should furnish written review and inspection reports of deficiencies and corrective actions recommended.

- Pre-final Inspection. When the development has been substantially completed by the contractor(s), a pre-final inspection will be held. The engineer shall notify TCEQ of the substantial completion of the project. The pre-final inspection will be made by the owner, applicant's project engineer, contractor, and the RUS State Staff Engineer. It is recommended that Form RD 1924-12, Pre-final Inspection Report, be used. The engineer's recorded pre-final inspection report shall include the following:
 1. Compliance with all requirements of the State Highway Department, City, County Commissioner's Court, and Railroad etc., with respect to construction in right-of-way.

2. Confirmation that lines have been pressure tested and the engineer or resident inspector observed testing.
 3. Facilities have been flushed clean, disinfected, and bacteriological tests approved by TCEQ.
 4. A field check was performed of all facilities and a list of all discrepancies (punch list) was provided to all parties.
 5. The working set of construction drawings was checked to insure all changes during construction have been recorded.
 6. Water tanks have been appropriately inspected with respect to tank primer and painting specifications. Appropriate tests were made of paint coatings and welds.
 7. A well brochure was provided containing the formation log, material settings sketch, production curves, chemical analysis, sand production tests, pump warranty and brochures, and pump operating voltage and amperes.
 8. Treatment plant, pumping stations, lift stations are in start up process and all systems are functioning.
 9. Environmental mitigation measures required during construction are listed and engineer verifies that they have been complied with.
 10. Final change order reconciling quantities has been processed.
 11. Contractor, subcontractors, suppliers, laborers, etc., are not pursuing any Claims.
 12. The engineer has provided a "Statement of Substantial Completion" and the date of the warranty has been established.
- Final Inspection. When all planned development has been completed in accordance with approved plans and specifications, and operational checks show that all items, singular or in combination, serve the purpose intended in an acceptable manner, a final inspection will be made. The following items should be accomplished and recorded by the project engineer at the time of final inspection and acceptance of the work:

1. All planned development has been completed in accordance with executed contract documents. Items on prefinal punch list have been corrected.
2. Prior to submitting the final pay estimate the engineer shall submit a "Statement of Completion" to the owner and USDA Rural Utilities Service. The statement shall include provisions for acceptance signatures of the owner and USDA Rural Utilities Service.
3. Engineer's final estimate of work.
4. Final reproducible Record Drawings ("as-built") and two sets of prints delivered to the owner. The "as-built" drawings should be a reflection of what was installed, showing actual location of tie-downs for valves and other principal elements of the project construction, where knowledge of location and function are important.
5. Certificates of acceptance or approval of work in right-of-way by State Highway official, City, County Commissioners, River Authorities, railroads and others.
6. TCEQ has been notified of the project completion.
7. Required guarantees, brochures, parts catalogs, operational procedure, etc., were delivered to owner.
8. Contractor provided evidence of all bills paid.
9. The applicant's engineer shall certify in writing that all requirements of state, county, and all other conditions of right-of-way easements, permits and licenses have been satisfied.

Changes in Development Plans. Change orders requiring State Office, Community Programs approval will be accompanied by comments and recommendations by the USDA Rural Development local office personnel and will show that funds are available. USDA Rural Development local office personnel shall check all unit prices and totals and recommend for approval. If the proposed change affects approval of the plans given by the TCEQ or other agencies, then regulatory concurrence in the changes will be required. Change orders should have sketches or revised plan sheets attached to show changed work. Changes shall be reviewed for environmental assessment purposes. Revisions or amendments to the environmental review by the consulting engineer and USDA Rural Development may be required.

Attachments: **Appendix A** – RUS Water and/or Waste Assembly of Contract Documents (3 pages)

Appendix B – Assembly of EJCDC Contract Documents (2 pages)

Appendix C – Construction Sign (1 page)

Note: “USDA Rural Development” is not the name of any agency. It is the name of a mission area within the USDA. The name of the funding agency is RURAL UTILITIES SERVICE (RUS).

RURAL UTILITIES SERVICE WATER AND/OR WASTE ASSEMBLY OF CONTRACT DOCUMENTS

- ____ 1. Certificate of Insurance - Attached to left inside cover (coverage should be in amounts as required in General Conditions - RUS Bulletin 1780-13, Attachment 9, page 17, paragraph 21.3.1) and must provide for 15 days written notice of cancellation as required by General Conditions, page 16, paragraph 21.2. Terms must cover construction time.
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 2. Title Page
- ____ 3. Engineer's Certificate of No Change in Federal Contract Documents - dated, signed and sealed
Note: If changes are made, a description of changes shall be noted.
- ____ 4. Table of Contents
- ____ 5. Advertisement for Bids, RUS Bulletin 1780-13, Attachment 1, (2 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 6. Information for Bidders, RUS Bulletin 1780-13, Attachment 2, (3 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 7. Supplemental Information for Bidders - Lobbying Requirements, (1 page)
<http://www.rurdev.usda.gov/tx/rusforms.htm>
- ____ 8. Bid, RUS Bulletin 1780-13, Attachment 3, (3 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 9. Bid Bond, RUS Bulletin 1780-13, Attachment 4, (2 pages), with the following statement attached to Bid Bond (5% of the total amount of the bid):
<http://www.usda.gov/rus/water/regs-bulletins.htm>

"IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located."
- ____ 10. Certification for Contracts, Grants & Loans (Required for contracts over \$100,000)
RD 1940-Q, **Exhibit A-1 only** (1 page)
<http://www.rurdev.usda.gov/regs/regs/pdf/1940q.pdf>
Note: SF LLL "Disclosure of Lobbying Activities" (2 pages) may be required, see:
<http://www.whitehouse.gov/omb/grants/sflllin.pdf>
- ____ 11. Notice of Award/Acceptance of Notice, RUS Bulletin 1780-13, Attachment 7, (1 page)
<http://www.usda.gov/rus/water/regs-bulletins.htm>

- ____ 12. Agreement, RUS Bulletin 1780-13, (4 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>

PRIVATE CORPORATION

- ____ 13a. Payment Bond, RUS –TX Bulletin 1780-13, Attachment 6-NP, dated 03/02, (5pages)
<http://www.rurdev.usda.gov/tx/rusforms.htm>
- ____ 14a. Performance Bond, RUS –TX Bulletin 1780-13, Attachment 5, dated 03/02, (4 pages)
<http://www.rurdev.usda.gov/tx/rusforms.htm>

PUBLIC BODY

- ____ 13b. Payment Bond, RUS-TX Bulletin 1780-13, Attachment 6-PB, dated 12/03, (4 pages)
<http://www.rurdev.usda.gov/tx/rusforms.htm>
- ____ 14b. Performance Bond, RUS-TX Bulletin 1780-13, Attachment 5, dated 03/02, (4 pages).
<http://www.rurdev.usda.gov/tx/rusforms.htm>
- ____ 15. Compliance Statement, Form RD 400-6, rev. 4/00, (2 pages).
<http://www.usda.gov/rus/water/wwforms.htm>
- ____ 16. Certificate Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions, Form AD 1048, rev. 1/92, (2 pages).
<http://www.usda.gov/rus/water/wwforms.htm>
- ____ 17. Notice to Proceed/Acceptance of Notice, RUS Bulletin 1780-13, Attachment 8, (1 page)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 18. General Conditions, RUS Bulletin 1780-13, Attachment 9, (pages 1-22)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 19. RUS Supplemental General Conditions, RUS Bulletin 1780-14, (8 pages), which includes Certificate of Owner's Attorney (page 7) and RUS concurrence (page 8)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 20. Statement Regarding Cultural Materials, undated, (1 page/1 paragraph)
<http://www.rurdev.usda.gov/tx/rusforms.htm>
- ____ 21. Technical Specifications
Other forms applicable:
- **Contract Change Order, Form RD 1924-7, rev. 2/97**
<http://www.usda.gov/rus/water/wwforms.htm>
 - **Partial Payment Estimate, RD Form 1924-18, rev. 6/97, etc.**
<http://www.usda.gov/rus/water/wwforms.htm>
 - **Certificate of Substantial Completion, form developed by engineer**

ASSEMBLY OF CONTRACT DOCUMENTS FOR SHORT FORM CONSTRUCTION CONTRACT

(may be used for contracts under \$100,000 for non-profit organizations,
when Payment and Performance Bonds are not required)

- ____ 1. Title Page
- ____ 2. Engineer's Certificate of No Change in Federal Contract Documents - dated, sealed and signed
- ____ 3. Table of Contents.
- ____ 4. RUS Bulletin 1780-15. <http://www.usda.gov/rus/water/regs-bulletins.htm>
 - ____ a. Notice and Instruction to Bidders - Item I, (1 page)
 - ____ b. Bidder's Proposal - Item II, (3 pages)
 - ____ c. Notice of Award - Item III, (1 page)
 - ____ d. Contract - Item IV, (3 pages)
 - ____ e. General Conditions - Item V, (3 pages)
- ____ 5. Compliance Statement Form RD 400-6, (if contract bid exceeds \$10,000), (2 pages)
<http://www.usda.gov/rus/water/wwforms.htm>
- ____ 6. Form AD-1048 (1/92) Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions, (2 pages)
<http://www.usda.gov/rus/water/wwforms.htm>
- ____ 7. RUS Supplemental General Conditions, RUS Bulletin 1780-14, (8 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 8. Special Conditions: Cultural Material Statement, (1 page/1 paragraph)
<http://www.rurdev.usda.gov/tx/rusforms.htm>
- ____ 9. Other: Notice to Proceed, Form RD 1924-10, "Release of Claimants,"
Form RD 1924-9, "Certificate of Contractor's Release," as applicable.
<http://www.usda.gov/rus/water/wwforms.htm>

Other forms applicable: Contract Change Order, Form RD 1924-7, rev. 2/97
<http://www.usda.gov/rus/water/wwforms.htm>
Partial Payment Estimate, Form RD 1924-18, rev. 6/97
<http://www.usda.gov/rus/water/wwforms.htm>
Certificate of Substantial Completion, form developed by engineer

ASSEMBLY OF EJCDC CONTRACT DOCUMENTS

Funding Agency 2002 Addition

- ____ 1. Certificate of Insurance - Attached to left inside cover (coverage should be in amounts as required in Supplementary Conditions, RUS Bulletin 1780-26, Exhibit G, Section SC-5.04, and must provide for 30 days written notice of cancellation as required by EJCDC General Conditions, paragraph 5.04.B.5.
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 2. Title Page.
- ____ 3. Engineer's Certificate of No Change in EJCDC Contract Documents - dated, signed and sealed.
- ____ 4. Table of Contents.
- ____ 5. Advertisement for Bids, RUS Bulletin 1780-26, Exhibit D (2 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 6. Instructions to Bidders, RUS Bulletin 1780-26, Exhibit E (9 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 7. Supplemental Information for Bidders - Lobbying Requirements (1 page)
<http://www.rurdev.usda.gov/tx/rusforms.htm>
- ____ 8. Bid (RUS Bulletin 1780-26, Exhibit F, (6 pages).
<http://www.usda.gov/rus/water/regs-bulletins.htm>
- ____ 9. Bid Bond, EJCDC No. C-430, (2 pages), with the following statement attached to Bid Bond (5% of the total amount of the bid):
<http://www.usda.gov/rus/water/regs-bulletins.htm>

"IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located."
- ____ 10. Certification for Contracts, Grants & Loans (Required for contracts over \$100,000)
RD 1940-Q, **Exhibit A-1 only** (1 page).
<http://www.rurdev.usda.gov/regs/regs/pdf/1940q.pdf>
Note: SF LLL "Disclosure of Lobbying Activities" (2 pages) may be required, see:
<http://www.whitehouse.gov/omb/grants/sfillin.pdf>
- ____ 11. Notice of Award, EJCDC No. C-510 (1 page)
<http://www.usda.gov/rus/water/ees/englib/contract.htm>
- ____ 12. Agreement Between Owner and Contractor, EJCDC No. C-521 (9 pages)
<http://www.usda.gov/rus/water/ees/englib/contract.htm>

PRIVATE CORPORATION

____ 13a. Payment Bond, RUS –TX Bulletin 1780-13, Attachment 6-NP, dated 03/02, (5pages)
<http://www.rurdev.usda.gov/tx/rusforms.htm>

____ 14a. Performance Bond, RUS –TX Bulletin 1780-13, Attachment 5, dated 03/02, (4 pages)
<http://www.rurdev.usda.gov/tx/rusforms.htm>

PUBLIC BODY

____ 13b. Payment Bond, RUS-TX Bulletin 1780-13, Attachment 6-PB, dated 11/03, (4 pages)
<http://www.rurdev.usda.gov/tx/rusforms.htm>

____ 14b. Performance Bond, RUS-TX Bulletin 1780-13, Attachment 5, dated 03/02, (4 pages)
<http://www.rurdev.usda.gov/tx/rusforms.htm>

____ 15. Compliance Statement, Form RD 400-6, rev. 4/00, (2 pages)
<http://www.usda.gov/rus/water/wwforms.htm>

____ 16. Certificate Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions, Form AD 1048, rev. 1/92, (2 pages)
<http://www.usda.gov/rus/water/wwforms.htm>

____ 17. Notice to Proceed, EJCDC No. C-550 (1 page)
<http://www.usda.gov/rus/water/ees/englib/contract.htm>

____ 18. General Conditions, EJCDC No. C-710 (60 pages), including Certificate of Owner's Attorney, Exhibit GC-A
<http://www.usda.gov/rus/water/ees/englib/contract.htm>

____ 19. Supplementary Conditions, RUS Bulletin 1780-26, Exhibit G (7 pages)
<http://www.usda.gov/rus/water/regs-bulletins.htm>

____ 20. Statement Regarding Cultural Materials (undated), (1 page/1 paragraph)
<http://www.rurdev.usda.gov/tx/rusforms.htm>

____ 21. Technical Specifications.

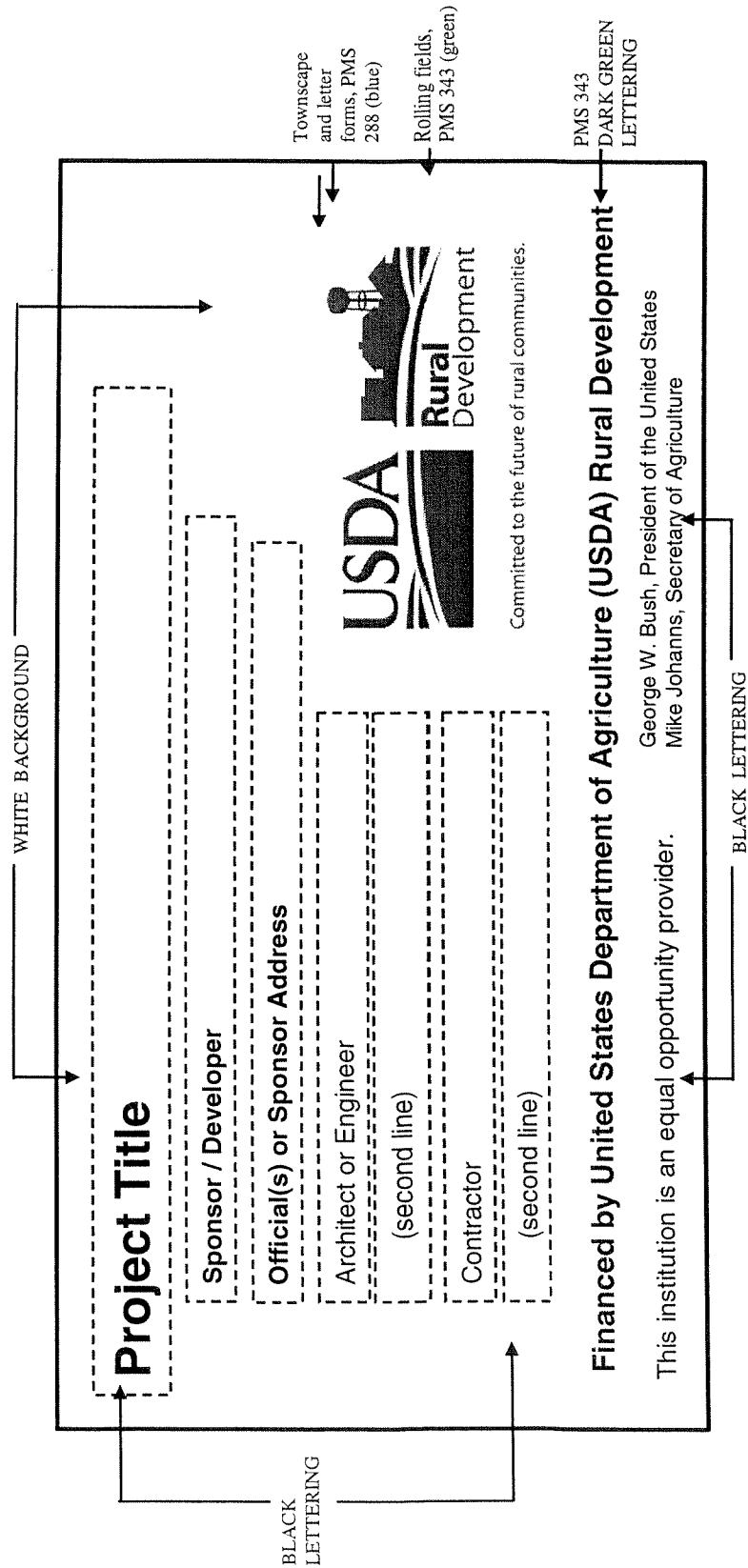
Other forms applicable:

Contract Change Order, EJCDC No. C-941 (2 pages)
<http://www.usda.gov/rus/water/ees/englib/contract.htm>

Application for Payment, EJCDC No. C-620 (4pages)
<http://www.usda.gov/rus/water/ees/englib/contract.htm>

Certificate of Substantial Completion, EJCDC No. C-625 (1 page)
<http://www.usda.gov/rus/water/ees/englib/contract.htm>

temporary construction sign for RURAL DEVELOPMENT projects



SIGN DIMENSIONS: 1200mm x 2400mm x 19mm (approx. 4' x 8' x 3/4")
PLYWOOD PANEL (APA RATED A-B GRADE - EXTERIOR)

TEXAS FORMS & BULLETINS REFERENCE LIST

FORM or BULLETIN NUMBER	DATE	FORM TITLE
FmHA TX 442-8	04/1977	Right-of-Way Easement (Location of Easement Required)
FmHA TX 442-9	04/1991	Right-of Way Easement (General Type Easement)
RUS TX 1780-1	05/2003	Association Loan Membership Survey Data Sheet for Water Service
RUS TX 1780-6	06/1999	Processing Checklist for Non-Profit Corporations
RUS TX 1780-6a	06/1999	Processing Checklist for Public Body (Bond Secured)
RUS TX 1780-7	10/1997	Agreement for Legal Services
RUS TX 1780-9	05/1999	Water Supply Corporation Service Application and Agreement
**RUS TX 1780-13 att 5	03/2002	Performance Bond
**RUS TX 1780-13 att 6 NP	03/2002	Payment Bond
**RUS TX 1780-13 att 6 PB	12/2003	Payment Bond
RUS TX 1780-20	07/2002	Bylaws
RUS TX 1780-20A	10/2002	Articles of Incorporation
RUS TX 1780-40	05/2003	Certification of Users by Area Directors (Water and/or Wastewater Loans)
**RD TX 1924-1	04/2003	Partial Payment Agreement
RD TX 1924-5	01/2000	Multi-Family Housing Assembly of Contract Documents
**RD TX 1924-6A	04/2003	Exhibit A to 1924-6
RD TX 1924-8	02/2005	Agreement for Architectural and Engineering Services
RD TX 1924-13A	05/2003	Payment Bond (Public Body)
RD TX 1924-13B	01/2004	Performance Bond (Public Body)
FmHA TX 1927-1	04/1993	Real Estate Deed of Trust for Texas (used by MFH & CF/RUS)
RD TX 1927-5	05/2003	Affidavit
**RD TX 1927-8	10/2001	Agreement with Prior Lienholder
** RD TX 1927-11	12/2003	Texas Warranty Deed (Voluntary Conveyance)
* **RD TX 1927-19	11/1997	Certificate of Attorney

USDA Rural Development

FORM or BULLETIN NUMBER	DATE	FORM TITLE
**RD TX 1927-22	05/2003	Agreement for Renewal and Extension and/or Inclusion of Additional Covenant in Deed of Trust (Transfer and Assumption)
**RD TX 1927-23	05/2003	Agreement for Renewal and Extension and/or Inclusion of Additional Covenant in Deed of Trust (Reamortization)
RD TX 1942-2	05/2003	By-Laws for Volunteer Fire Departments
RD TX 1942-3	05/2003	Articles of Incorporation - Volunteer Fire Department (Not for Profit)
RD TX 1942-4	05/2003	Texas Community Facilities Direct Loan and Grant Processing Checklist – RD Instruction 1942-A / 3570-B
RD TX 1942-5	05/2003	Texas Community Facilities Fire and Rescue (<\$250,000) Direct Loan & Grant Processing Checklist – RD Instruction 1942-C / 3570-B
RD TX 1942-19	01/2005	Median Fees for Professional Engineering Services as a Percentage of Net Construction Cost
RD TX 1942-44	04/1998	Plan Certification
RD TX 1951-1	05/2003	Field Office Remittance Form
RD TX 2006-10	04/2003	USDA – RD, Texas User ID Request
RD TX 2006-46	02/2005	State Procedure Notice
RD TX 2051-1	06/2000	Request to Earn Credit Hours
RD TX 2051-2	3/2003	Time and Attendance Input Record
RD TX 3550-2	10/2000	Release of Deed of Trust
**RD TX 3550-14	12/2003	Deed of Trust for Texas
**RD TX 3550-14A	11/1997	Refinancing Rider
**RD TX 3550-14B	11/1997	Home Improvement/Construction Rider
**RD TX 3550-30	05/2003	Transfer and Assignment
RD TX 3575-1	03/2003	Texas Community Facilities Guaranteed Loan Processing Checklist – RD Instruction 3575-A
RD TX 4279-1	05/2003	Guaranteed Loan Data

USDA Rural Development

TEXAS GUIDE LETTERS REFERENCE LIST

GUIDE LETTER NUMBER	DATE	TITLE
RD TX Guide Letter 1927-B-1	11/1997	Request for Title Policy and Legal Services

* Rural Development and Farm Service Agency (FSA) share these forms.

** There is a Forms Manual Insert (FMI) for this form.

AGREEMENT FOR ARCHITECTURAL AND ENGINEERING SERVICES

THIS AGREEMENT, made this _____ day of _____ by and
between _____, hereinafter referred to as the **OWNER**, and
_____, hereinafter referred to as the
ARCHITECT/ENGINEER.

THE OWNER intends to construct a _____

in _____ County, State of _____ which may be paid for in part
with financial assistance from the United States of America, acting through USDA Rural Development of
the United States Department of Agriculture, hereinafter referred to as USDA Rural Development, and
the **ARCHITECT/ENGINEER**, hereinafter referred to as **A/E** agrees to perform the various professional
Architectural and Engineering services required for the design and construction of said project in
accordance with the following:

ARTICLE I ARCHITECT'S SERVICES

BASIC SERVICES

- 1.1 The **A/E's** basic services consist of the phases described below and include normal structural, mechanical, and electrical engineering services. The **A/E** will also provide the necessary surveys and plats for design and site development.

PRELIMINARY PLANS (Phase I)

- 1.1.1. The **A/E** shall consult with the **OWNER and USDA Rural Development** to ascertain the requirements of the project and shall confirm such requirements to the **OWNER**.
- 1.1.2. The **A/E** shall prepare schematic design, landscape design and outline specifications for the project. Also, the **A/E** shall prepare preliminary cost estimate on the project.
- 1.1.3. The **A/E** shall secure **OWNER's and USDA Rural Development's** acceptance of preliminary work and the authority to proceed with Phase II.

CONTRACT DOCUMENTS (Phase II)

- 1.1.4. The **A/E** shall prepare from the accepted preliminary plans, for acceptance of the **OWNER and USDA Rural Development**, working drawings and specifications setting forth in detail the requirements for the construction of the entire project including Contract Documents and the reproduction of same.
- 1.1.5. The Contract Documents furnished by the **A/E** under Article 1.1.4 above shall utilize standard USDA Rural Development forms for the Notice to Bidders, Proposal Form, Contract Agreement Form, General Conditions, USDA Rural Development Supplemental General Conditions of Agreement and Payment and Performance Bonds. Special Conditions and the Notice of Award and the Notice to Proceed shall also be prepared by the **A/E**. All these Documents shall be subject to **USDA Rural Development** acceptance.
- 1.1.6. The **A/E** will submit to the **OWNER** a further statement of Probable Construction Cost.
- 1.1.7. The **A/E**, following the **OWNER's and USDA Rural Development's** acceptance of the working drawings, specifications, and the latest Statement of Probable Construction Cost, shall assist the **OWNER** in obtaining bids or negotiated proposals.

ADMINISTRATION OF CONTRACT DOCUMENTS (Phase III)

- 1.1.8. The **A/E** shall assist in awarding of Contracts. The **A/E** shall issue Work Orders to **Contractors** and be a representative of the **OWNER** during the construction phase. Instructions to the **Contractor** shall be forwarded through the **A/E**.
- 1.1.9. The **A/E** will provide horizontal and vertical control in the form of benchmark circuit and two base lines to be used by the **Contractor** in staking construction.
- 1.1.10. The **A/E** shall make periodic visits to the project at intervals appropriate to the stage of construction to familiarize himself/herself with the progress and quality of the work and to determine if the work is proceeding in accordance with the Contract Documents. Stage visits are defined as foundation, framing, pre-final, and final inspections. On the basis of his/her on-site observations as an **A/E**, he/she shall keep the **OWNER** informed of the progress and quality of the work and shall endeavor to guard the **OWNER** against defects and deficiencies in the work of the **Contractor**. Copies of inspection reports made during visits shall be provided USDA Rural Development by the **A/E**. The **A/E** shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work, and he/she shall not be responsible for the **Contractor's** failure to carry out the work in accordance with the Contract Documents.
- 1.1.11. Based on such observations at the site and on the **Contractor's** applications for Payment, the **A/E** shall determine the amount owing to the **Contractor** and shall issue Certificates for Payment in such amounts. The issuance of a Certificate for Payment shall constitute a representation by the **A/E** to the **OWNER**, based on the **A/E's** observations at the site as provided in Subparagraph 1.1.10, and on the data comprising the Application for Payment that the work has progressed to the point indicated; that to the best of the **A/E's** knowledge, information and belief, the quality of the work is in accordance with the Contract Documents (subject to an evaluation of the work as a functioning whole upon Substantial Completion, to the results of any subsequent test required by the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion and to any specific qualifications stated in the Certificate of Payment); and that the **Contractor** is entitled to payment in the amount certified. By issuing a Certificate for Payment, the **A/E** shall not be deemed to represent that he/she has made any examination to ascertain how and for what purpose the **Contractor** has used the monies paid on account of the Contract sum.
- 1.1.12. The **A/E** shall have authority to reject work which does not conform to the Contract Documents, and will have authority to require special inspection or testing of the work whenever in the **A/E's** reasonable opinion, it is necessary or advisable for the implementation of the intent of the Contract Documents.
- 1.1.13. The **A/E** shall review and accept shop drawings, samples, and other submissions of the **Contractor** only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents.

- 1.1.14. The A/E shall prepare Change Orders. Form RD 1924-7, "Contract Change Order," may be used for this purpose.
Concurrence in writing by a duly authorized representative of USDA Rural Development will be obtained prior to putting a Change order into effect.
- 1.1.15. The A/E shall conduct inspections to determine Date of Substantial Completion and Final Completion, shall receive written guarantees and related documents assembled by the **Contractor**, and shall issue a final Certificate for Payment. The A/E shall furnish copies of all reports to **Owner, Contractor, and USDA Rural Development.**
- 1.1.16. The A/E will provide the **OWNER** with three sets of record drawings at no additional cost to the **OWNER**. Such drawings will be based upon construction records provided by the **Contractor** during construction and reviewed by the A/E's representative and from the A/E's representative construction data.
- 1.1.17. The A/E will provide consultation services during the warranty period. The architect will accompany the USDA Rural Development representative during the inspection required one month prior to expiration of the warranty period.

ARTICLE II PAYMENT SCHEDULE

- 2.1. The **OWNER** shall compensate the A/E for basic Architectural and Engineering Services based on a percentage of total actual construction cost.

Single stipulated sum contract _____ percent (____%).

- 2.1.1. The construction cost on which the compensation for basic Architectural and Engineering Services is determined shall exclude legal fees, administrative cost, architectural fees, land right acquisition cost and interest expense incurred during the construction period. The compensation for Basic Architectural and Engineering Services shall be payable as follows:

- a. The sum of _____ Dollars
(\$ _____) after the review of the preliminary A/E report by the **USDA Rural Development** and the acceptance by the **OWNER**. **USDA Rural Development** funds will not be available for this item until the loan is closed. Total fees will not be paid under this item if the Architect is responsible for administration of Contract Documents.
- b. A sum which together with the specific sum set forth above equals seventy percent (70%) of the total compensation based on the final cost estimate after completion and submission of the final plans, specifications, cost estimates, and contract documents, and the acceptance of the same by the **OWNER** and **USDA Rural Development**.

- c. A sum equal to ten percent (10%) of the total compensation based on construction contract costs immediately after the construction contracts are awarded.
- d. A sum equal to fifteen percent (15%) of the compensation will be paid on a monthly basis for general engineering and architectural review of the **Contractor's** work during the construction period on percentage ratios identical to those accepted by the **A/E** as a basis upon which to make partial payments to the **Contractor(s)**. However, payment under this paragraph and of such additional sums as are due the **A/E** by reason of any necessary adjustments in the payment computations will be in an amount so that the aggregate of all sums paid to the **A/E** will equal ninety-five percent (95%) of the compensation. A **final Payment to equal 100 percent shall be made when it is determined that all services-required by this Agreement have been completed.** (Except for services to be performed under 1.1.17.)

- 2.1.2. In cases where the Architect does not have in-house capability to provide engineering or land survey portion of professional services, he/she may hire and pay the cost of these services. An alternative would be for the Architect to reduce his/her fee so the **OWNER** could contract for these services separately. Total compensation under the alternative method shall not exceed the sum specified in Article II - 2.1.

ARTICLE III **INDEPENDENT ARCHITECTURAL/ENGINEERING SERVICES**

- 3.1. If the Applicant or **Contractor(s)** is an **A/E** or organization with architectural capability and has an interest in the ownership, the applicant must nevertheless, hire an independent qualified Architect, Engineer, or **A/E** firm to inspect the construction work and perform other needed services during the construction warranty phases. The **independent Architect, Engineer, or Architectural or Engineering firm** may hereinafter be referred to as **Independent Inspector**.
- 3.1.1. The **A/E – OWNER** shall reduce his/her fee the equivalent of independent construction inspection service cost. Total **A/E** fees, including independent service fees, shall not exceed the normal allowable compensation specified therefore in Article II - 2.1.
- 3.1.2. It shall be the responsibility of the **Independent Inspector**, to perform all services as prescribed in Article I, Paragraphs 1.1.10, 1.1.11, 1.1.12, 1.1.13, 1.1.14, 1.1.15, and 1.1.17.

- 3.1.3. The **OWNER** shall compensate the **Independent Inspector** for services based on a percentage of total actual construction cost identical to those accepted by the **Independent Inspector** as a basis upon which to make partial payments to the **Contractor(s)**. However, final payment under this paragraph and of such additional sums as are due the **Independent Inspector** by reason of any necessary adjustment in the payment as determined on actual total construction cost shall not be made until it is determined that all services required of the **Independent Inspector** by this Agreement have been completed (except for services to be performed under 1.1.17).

Single stipulated sum contract _____ percent (_____%).

ARTICLE IV
INTERIM AGREEMENT

(For use only when OWNER is not legally organized on the date the Agreement for Architectural and Engineering services is executed)

In lieu of the execution of the foregoing Agreement for A/E Services dated the _____ day of _____ by the party designated as **OWNER** therein, the undersigned, hereinafter referred to as **INTERIM PARTIES**, have executed this Interim Agreement in consideration of the services described in Article I, Paragraphs 1.1.1 through 1.1.3, inclusive, of said Agreement for Architectural Services to be performed by the A/E, and the A/E agrees to accept this Interim Agreement as evidenced by A/E execution hereof contemporaneously with the execution of the Agreement for Architectural and Engineering Services. The A/E also agrees to perform the services set forth in said Article I, Paragraphs 1.1.1 through 1.1.3, inclusive, of said Agreement, in consideration of the sum stated in Article II, Paragraph 2.1.1 of said Agreement to be paid in the manner set forth therein.

It is anticipated that the **OWNER** shall promptly become a legal entity with full authority to accept and execute said Agreement for Architectural Services and that the **OWNER**, after becoming so qualified, shall promptly take such action as necessary to adopt, ratify, execute, and become bound by the Agreement for Architectural and Engineering Services. The A/E agrees that upon such due execution of the Agreement for Architectural and Engineering Services by the **OWNER**, the **INTERIM PARTIES** automatically will be relieved of any responsibility or liability assumed by their execution of this Interim Agreement and that the Architect will hold the **OWNER** solely responsible for performance of the terms and conditions imposed upon the **OWNER** by the Agreement for Architectural and Engineering Services, including the payment of all sums specified in Article II, Paragraph 2.1.1.a of said Agreement.

If the **OWNER** is not legally organized, or if after being duly organized it fails or refuses to adopt, ratify, and execute the Agreement for Architectural Services within 30 days from the date it becomes legally organized and qualified to do so, or if for any other reason the project fails to proceed beyond the preliminary stage described in Article I, Paragraphs 1.1.1 through 1.1.3 inclusive, of said Agreement, the **INTERIM PARTIES** agree to pay Architect for such preliminary Architectural Services an amount not to exceed the sum specified therefore in Article II, Paragraph 2.1.1.a of said Agreement.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate this _____ day
of _____.

INTERIM PARTIES:

Typed Name _____

Typed Name _____

Typed Name _____

(SEAL)

ATTEST:

A/E:

_____ **By** _____

Typed Name _____

Typed Name _____
Title _____

ARTICLE V
APPROVAL BY OWNER AND USDA RURAL DEVELOPMENT CONCURRENCE

This Agreement shall not become effective until concurred in by **USDA Rural Development**. Such concurrence shall be evidenced by the signature of a duly authorized representative of **USDA Rural Development** in the space provided at the end of this Agreement. The concurrence so evidenced by **USDA Rural Development** shall in no way commit **USDA Rural Development** to render financial assistance to the **OWNER**, but in the event such assistance is provided, the concurrence shall signify that the provisions of this Agreement are consistent with the requirements of **USDA Rural Development**.

The **USDA Rural Development** as potential lender or insurer of funds to defray the costs of this Agreement and without liability for any payments, thereunder, hereby accepts the form, content and the execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate on the respective dates indicated below.

(SEAL)
ATTEST:

Typed Name _____
Title _____

OWNER:

By _____
Typed Name _____
Title _____
Date _____

(SEAL)
ATTEST:

Typed Name _____
Title _____

A/E:

By _____
Typed Name _____
Title _____
Date _____

CONCURRED WITH BY
USDA RURAL DEVELOPMENT OFFICIAL

INDEPENDENT ARCHITECTURAL/ENGINEER
SERVICES (When Article III is in effect)

By _____
Typed Name _____
Title _____

By _____
Typed Name _____
Title _____
Date _____

Attachment I to Form RD 1942-19, Agreement for Engineering Services, dated _____,
Between _____ (Owner) and _____ (Owner's Engineer).

MEDIAN FEES FOR PROFESSIONAL ENGINEERING SERVICES AS A PERCENTAGE OF NET CONSTRUCTION COST

The fees for services described in SECTION A of the Agreement for Engineering Services is provided for in the tables below. The term "OWNER", as used herein, shall refer to the entity applying for a Rural Utilities Service (RUS) loan and/or grant. The Rural Utilities Service, is an agency within the United States Department of Agriculture, Rural Development mission area, and is referred to in this Agreement as "AGENCY".

Table I may be used for that portion of a construction project which is unusually complex because it includes a complete water treatment plant, sewer collection, sewer treatment plant, water impoundment, or extensive rehabilitation of an existing facility. Compensation for engineering of water lines of diameter smaller than 16 inches and sewer lines of diameter smaller than 24 inches shall be described by Table I.

Table II shall apply to all work not provided for in Table I or III.

Table III shall apply to sewage treatment facilities utilizing facultative/oxidation ponds and/or artificial wetlands. AGENCY encourages application of Value Engineering during the design and procurement of facilities by eligible OWNERS and their ENGINEERS in order to reduce the cost of a project while maintaining or improving performance over that of a conventional mechanical sewage treatment facility. Although Value Engineering efforts are directed at reducing costs, equal consideration is given to maintaining and improving quality, maintainability, performance, safety, environmental sensitivity, and reliability. Those ENGINEERS able to demonstrate successful application of Value Engineering, with results approved by the AGENCY, that resulted in a reduced fee for engineering services when compared with the fee that would have been earned from the design of a conventional mechanical sewage treatment plant, shall present a written request with justification for approval by the AGENCY and the OWNER of a negotiated increase in fees to compensate the Owner's ENGINEER for the loss of fees realized.

Total Actual Construction Cost	Table I % Fee	Table II % Fee	Table III % Fee
Below \$300,000	Negotiated	Negotiated	Negotiated
\$300,000	9.6	7.8	10.6
\$400,000	9.1	7.4	10.1
\$500,000	8.5	7.1	9.5
\$600,000	8.2	6.9	9.2
\$700,000	8.0	6.8	9.0
\$800,000	7.8	6.6	8.8
\$900,000	7.6	6.5	8.6
\$1,000,000	7.5	6.4	8.5
\$2,000,000	6.9	5.8	7.9
\$3,000,000	6.7	5.6	7.7
\$5,000,000	6.3	5.2	7.3
Above \$5,000,000	Negotiated	Negotiated	Negotiated

The engineering services fee for project costs falling between the figures on the above Tables shall be interpolated to the nearest one-tenth of one percent. Total actual construction cost includes the total of all construction contracts. The contracts must be listed under Section F – Special Provisions. Subject to AGENCY's approval of ENGINEER's written justification, separate contracts, in amounts less than \$300,000 each, may be used to describe construction work requiring extraordinary amounts of engineering more appropriately compensated using the negotiated fees described above.

In the event a Resident Inspector from the local area, with qualifications deemed appropriate by the AGENCY, is not available to the OWNER, the ENGINEER shall present a written request with justification for approval from the OWNER and the AGENCY to allow reimbursement of the travel related costs itemized on page 3 of Attachment I, as an additional project cost to facilitate the ENGINEER's hiring of a qualified out-of-area Resident Inspector. Regardless of whether the Resident Inspector is employed by the OWNER or the Owner's ENGINEER, the ENGINEER is not relieved of providing general engineering inspections by a qualified Engineer. The ENGINEER, employed by the OWNER, is required to provide general supervision of the work of the Resident Inspector and oversight of the construction activity. Periodic visits to the jobsite by the ENGINEER are expected. A written report of the findings of each such visit shall be presented, along with the Resident Inspector's daily written reports of construction progress, to the AGENCY's Local Office with each partial payment estimate.

For projects involving wastewater collection, the detailed topographic surveys for the designing of gravity flow sewer collection lines may be considered as an additional engineering service.

The cost for additional consultation as may be required with regulatory authorities may be shown as an additional cost charged at the appropriate hourly rate.

In the event a dispute of a technical nature between a contractor and the OWNER arises, the Owner's ENGINEER shall present a recommendation of resolution to the contractor, to the OWNER, and to the AGENCY.

Upon satisfactory completion of construction, Owner's ENGINEER shall provide to the OWNER one set of reproducible record ("as-built") drawings, and two sets of prints, at no additional cost to the OWNER. These "as-built" drawings shall be a reflection of what was installed, showing actual location tie-downs for valves and other principal elements of the project construction, where knowledge of location and function are important.

**SCHEDULE OF MAXIMUM ALLOWABLE RATES AND CHARGES FOR
ADDITIONAL ENGINEERING SERVICES
AS REFERRED TO IN SECTIONS C AND D OF
THE AGREEMENT FOR ENGINEERING SERVICES
EFFECTIVE 02/05**

<u>PERSONNEL</u>	<u>RATE PER HOUR</u>
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Engineering

Principal	\$ 120.00
Project Engineer	\$ 95.00
Design Engineer	\$ 85.00
Project Manager	\$ 85.00
E.I.T. (Engineer in Training)	\$ 70.00
Sr. Engineering Technician	\$ 65.00
Engineering/Environmental Technician	\$ 55.00
Environmental Scientist/Coordinator (**)	\$ 65.00
CAD Technician	\$ 50.00
Draftsman	\$ 40.00
Administrative Clerk	\$ 40.00
Clerk	\$ 35.00
Easement Acquisition Specialist (*)	\$ 45.00

Inspection

Resident Project Representative (*)	\$ 45.00
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Surveying

Three-man Party	\$ 105.00
Two-man Party	\$ 85.00
GPS Party	\$ 125.00
Registered Professional Land Surveyor (RPLS)	\$ 85.00
Technician	\$ 45.00

REIMBURSABLE EXPENSES (*)

1. Travel at \$ 0.405/mile plus time at above rates.
 2. Actual cost of subsistence and lodging.
 3. Actual cost of telephone calls, express charged, postage, etc.
 4. Actual cost of materials used in surveying, drafting, printing and reproduction.
 5. Actual cost times 1.05 for special tests and special consultants as referred to in Section D. This includes special surveys required for environmental report such as biological or archaeological surveys.
- (*) Unless approved in writing by the AGENCY and the OWNER, the above listed items will not apply to the Resident Inspector and the Easement Acquisition Specialist, except for on-site travel and telephone calls.
- (**) Includes any technical specialty associated with environmental compliance, such as; environmental scientist, geologist, hydrologist, biologist, or cultural resources specialist.

**SCHEDULE OF RATES AND CHARGES FOR ADDITIONAL ENGINEERING SERVICES
AS REFERRED TO IN SECTIONS C AND D OF
THE AGREEMENT FOR ENGINEERING SERVICES**

<u>PERSONNEL</u>	<u>RATE PER HOUR</u>
<hr/>	
<u>Engineering</u>	
Principal	\$ _____
Project Engineer	\$ _____
Design Engineer	\$ _____
Project Manager	\$ _____
E.I.T. (Engineer in Training)	\$ _____
Sr. Engineering Technician	\$ _____
Engineering/Environmental Technician	\$ _____
Environmental Scientist/Coordinator (**)	\$ _____
CAD Technician	\$ _____
Draftsman	\$ _____
Administrative Clerk	\$ _____
Clerk	\$ _____
Easement Acquisition Specialist (*)	\$ _____
 <u>Inspection</u>	
Resident Project Representative (*)	\$ _____
 <u>Surveying</u>	
Three-man Party	\$ _____
Two-man Party	\$ _____
GPS Party	\$ _____
Registered Professional Land Surveyor (RPLS)	\$ _____
Technician	\$ _____

REIMBURSABLE EXPENSES (*)

1. Travel at \$ 0.405/mile plus time at above rates.
 2. Actual cost of subsistence and lodging.
 3. Actual cost of telephone calls, express charged, postage, etc.
 4. Actual cost of materials used in surveying, drafting, printing and reproduction.
 5. Actual cost times 1.05 for special tests and special consultants as referred to in Section D. This includes special surveys required for environmental report such as biological or archaeological surveys.
- (*) Unless approved in writing by the USDA Rural Utilities Service and the Owner, the above listed items will not apply to the Resident Inspector and the Easement Acquisition Specialist, except for on-site travel and telephone calls.
- (**) Includes any technical specialty associated with environmental compliance, such as; environmental scientist, geologist, hydrologist, biologist, or cultural resources specialist.

COMPENSATION FOR ENGINEERING SERVICES

Form RD 1942-19, Section B – COMPENSATION FOR ENGINEERING SERVICES; Items #1, #2, and #3(a) are replaced with the following payment provisions:

1. The OWNER shall compensate the ENGINEER for preliminary engineering services, as described in Section A – ENGINEERING SERVICES, (Items 1, 2, & 3) shall include a Preliminary Engineering Report for \$_____ and an Environmental Report for \$_____. Compensation for preliminary engineering services shall be paid in full from loan proceeds after the review and approval of the Preliminary Engineering Report and Environmental Report by the OWNER and the AGENCY.

2. The OWNER shall compensate the ENGINEER for design and contract administration engineering services as described in Section A – ENGINEERING SERVICES (Items 4 through 22) and this Attachment in accordance with the following:

- () Table I for _____
() Table II for _____
() Table III for _____

The actual construction cost on which compensation is determined shall be the total of all construction contracts excluding legal fees, administrative costs, engineering fees, land rights, acquisition costs, water costs, and interest expense incurred during the construction period. The contracts are listed under Section F – Special Provisions.

3. The compensation for engineering services, design and contract administration as described in Section A – ENGINEERING SERVICES shall be payable from loan proceeds, as follows:

() **At 25%** completion of drawings, specifications, cost estimate, and contract documents the ENGINEER shall be paid a sum not to exceed 15.0% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$_____.

() **At 50%** completion of drawings, specifications, cost estimate, and contract documents the ENGINEER shall be paid an additional 15.0% for a sum not to exceed 30.0% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$_____.

() **At 75%** completion of the drawings, specifications, and contract documents, the ENGINEER shall be paid an additional 15% for a sum not to exceed 45.0% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$_____.

() **At 100%** completion of the drawings, specifications, and contract documents and acceptance of the same by the OWNER and USDA Rural Utilities Service, the ENGINEER shall be paid an additional 25% for a sum not to exceed 70% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$_____.

It is understood by the OWNER and the ENGINEER that AGENCY provided loan funds will not be provided for payment of Project costs until after loan closing and executed construction contracts have been approved.

INVOICES FOR ENGINEERING SERVICES

1. Invoices for engineering services shall identify the service in accordance with the Agreement for Engineering Services. Services shall be identified on each invoice as follows:
 - a. Preliminary Engineering Services (Preliminary Engineering Report and Environmental Report). The cost of the Environmental Report shall include the cost of preparing the report, all maps/attachments and initial contacts/consultation with regulatory authorities. Special studies or surveys unique to the proposal, such as cultural resource surveys, shall be listed separately and included as Additional Engineering Services.
 - b. Design and Contract Administration (basic services as described in Section A).
 - c. Resident Inspection (See page 2)
 - d. Additional Engineering Services (Section D provides for prior written approval by the OWNER and the AGENCY).
2. Fees for Design and Contract Administration should initially be based on the estimated construction cost. After the contracts are awarded, fees shall be adjusted to the awarded contract cost, including change orders. Fees shall not be based on bids which exceed the funds allocated and budgeted.
3. In accordance with the Agreement, additional engineering services require prior written authorization by the OWNER and written approval by the AGENCY. AGENCY approval of additional engineering services for all projects will require the review of the following:
 - a. Written authorization from the OWNER.
 - b. A complete description of the additional services authorized by the OWNER.
 - c. Cost of the additional services authorized by the OWNER.
4. Unless reviewed and approved by the AGENCY in advance, redesigns required to bring the construction cost within the funds allocated and budgeted shall be the responsibility of the ENGINEER without additional compensation paid by the OWNER.
5. Engineering services for a Project using AGENCY financing shall be performed under a single engineering services agreement and the ENGINEER shall not enter into side agreements with the OWNER without AGENCY approval.

Presiding Officer of Governing Body of OWNER

Date

Owner's ENGINEER

Date

APPROVED by AGENCY (RURAL UTILITIES SERVICE)

Name _____

Title _____ Date _____



Committed to the future of rural communities.

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Development
Temple, Texas

ISSUE NO.
DATE
Distribution

STATE PROCEDURE NOTICE
